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09/511,330

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Eric Andre

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EXAMINER

CAI, WAYNE HUU

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/511,330

Applicant(s)

ANDRE ET AL.

Examiner

Wayne Cai

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 10/06/2004. These drawings are acceptable.

Claim Objections

2. Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 2, 4, and 5. See MPEP § 608.01(n). Accordingly, the claim should be corrected as "claim 2 or 4 or 5".

Response to Arguments

3. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6-7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boytim et al (hereinafter Boytim) (US – 6,078,622 A) in view of Renard et al (hereinafter Renard) (US – 6,081,691 A).

Regarding claims 1, 7, and 10, Boytim discloses dual mode radio frequency reception device of the type enabling simultaneous reception firstly of multi-carrier digital audio broadcast (DAB) signals in a first frequency band (11), and secondly, radio global positioning signals (GPS) in a second frequency band (12), (13) (column 3, lines 24-46, and figure 1, boxes "DAB" and "GPS"), the device comprising a single preprocessing module (21) (column 3, lines 60-67, and column 4, lines 1-25, also see figure 1, "10"), and simultaneously displaying the processed multi-carrier digital audio broadcast (DAB) signals and the processed radio global positioning signals (GPS) (figure 1, "18").

Boytim, however, fails to disclose a pass-band antenna filter (211) in which the pass-band includes at least the said first and second frequency bands, simultaneously outputting firstly to a first processing system (22) for processing the multi-carrier digital audio broadcast (DAB), and processing the said radio global positioning signals (GPS).

In a similar endeavor, Renard discloses a dual mode radio frequency device. Renard further discloses a pass-band antenna filter (211) in which the pass-band includes at least the said first and second frequency bands (column 6, lines 20-32, and figure 1 "12"), simultaneously outputting firstly to a first processing system (22) for processing the multi-carrier digital audio broadcast (DAB) (figure 1, "GLONASS signal"), and processing the said radio global positioning signals (GPS) (figure 1, "GPS signal").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a single preprocessing module to reduce the cost of the device.

Regarding claim 2, Boytim and Renard disclose the device according to claim 1 as described above. Boytim further discloses the said single preprocessing module (21) also comprises at least one of the elements belonging to the group comprising (see figure 3 and its descriptions):

- a first low noise amplifier (212) (figure 3, "44");
- a first transposition stage (213) to a first intermediate frequency, by multiplying by a first transposition frequency (figure 3, "46 & 48");
- a second amplifier (214) (figure 3, "50").

Regarding claim 3, Boytim and Renard disclose the device according to claim 1 as described above. Renard further discloses the said first processing system (22) comprises first digitization means (226) and the said second processing system comprises second digitization means (236), the said first and second digitization means being controlled by the same analog-digital conversion frequency (column 7, lines 33-52, and figure 1).

Regarding claim 6, Boytim and Renard disclose the device according to claims 2, or 4, or 5 as described above. However, Renard teaches using a single frequency synthesizer to output a first transposition frequency, and second transposition frequencies used by transposition stages (ML2, ML3) to intermediate frequencies included in the first and second processing systems, into the first and second processing systems (column 6, lines 45 to column 7, lines 31, and figure 1).

6. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boytim et al (hereinafter Boytim) (US – 6,078,622 A) in view of Renard et al (hereinafter Renard) (US – 6,081,691 A), and in further view of Groshong (US – 6,218,972 B1).

Regarding claim 4, Boytim and Renard disclose the device according to claim 3 as described above. Boytim and Renard, however, fail to disclose said first digitization means (226) include a delta-sigma pass-band modulator.

Groshong, however, discloses said first digitization means (226) include a delta-sigma pass-band modulator (title, abstract, figure 1 “14”, and its descriptions).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the delta-sigma pass-band modulator process the analog-digital conversion.

Regarding claim 5, Boytim and Renard disclose the device according to claim 3 as described above. Boytim and Renard, however, fail to disclose said second digitization means (236) include a “1-bit” quantifier.

Groshong, however, discloses said second digitization means (236) include a “1-bit” quantifier (column 3, lines 15-53).

7. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boytim et al (hereinafter Boytim) (US – 6,078,622 A) in view of Renard et al (hereinafter Renard) (US – 6,081,691 A), and in further view of Johnstone et al (hereinafter Johnstone) (US – 5,898,680 A).

Regarding claim 8, Boytim and Renard disclose the device according to claim 1 as described above. Boytim and Renard, however, fail to disclose the said first frequency band is between about 1452.192 MHz and 1491.392 MHz, and in that the said second frequency band is between about 1574.42 MHz and 1576.42 MHz.

Johnstone, however, discloses the said first frequency band is between about 1452.192 MHz and 1491.392 MHz (column 4, lines 30-35). Therefore, it would be obvious to include the said second frequency band is between about 1574.42 MHz and 1576.42 MHz for GPS signals.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include these frequency bands since it is well known in the art.

Regarding claim 9, Boytim and Renard disclose the device according to claim 1 as described above. Boytim and Renard, however, fail to disclose portable multimedia receiver, characterized in that it comprises a dual mode radio frequency reception device.

Johnstone, however, discloses portable multimedia receiver, characterized in that it comprises a dual mode radio frequency reception device (column 4, lines 36-46).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (703) 305-0265. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (703) 306-0003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wayne Cai
Examiner
Art Unit 2681

